

IN THE CLAIMS:

1. (currently amended) A method for correlating descriptive attributes of a portfolio of assets for valuation of the assets included within the portfolio using a computer coupled to a database, said method comprising the steps of:

segmenting the portfolio of assets into at least two valuation portions;

at least one of fully underwriting each asset individually, and grouping and underwriting a sample of assets included within a first portion of the asset portfolio for computing a value for each asset included within the first portion of the asset portfolio, the valuation computation is performed by the computer;

storing in the database asset data including the computed value and descriptive attribute variables for each asset included within the first portion; and

using the computer to statistically infer a value for each asset included within a second portion of the asset portfolio by performing a correlation process between descriptive attribute variables for assets included within the second portion and asset data stored in the database, the correlation process including the steps of:

identifying at least two descriptive attribute variables for assets included within the second portion of the portfolio for correlating with descriptive attribute variables stored in the database for assets included within the first portion of the portfolio;

calculating a value of a response variable for assets included within the second portion based on the asset data assigned to assets included within the first portion having descriptive attribute variables that correlate with the identified descriptive attribute variables or frequency of occurrence for levels or bins of individual attribute variables and pairs of attribute variables;

grouping the assets included within the second portion according to the calculated value of a the response variable or frequency of occurrence of the individual attribute variables; and

displaying the groupings.

2. (currently amended) A method according to Claim 1 wherein said step of identifying at least two descriptive attribute variables further comprises the step of determining if the variable type is continuous or categorical.

3. (currently amended) A method according to Claim 2 wherein said step of calculating an average a value of a response variable further comprises the steps of:

~~computing an average response value for categorical variables;~~

~~computing bins for continuous variables; and~~

~~computing an average bin response.~~

computing an average value of a response variable for each of all combinations of the at least two identified descriptive attribute variables, wherein the at least two identified descriptive attribute variables include at least one of a continuous variable type and a categorical variable type; and

storing in the database the average value for each of all combinations of the at least two identified descriptive attribute variables.

4. (currently amended) A method according to Claim 1 wherein said step of calculating an average a value of a response variable further comprises the steps of calculating an average value of a response variable for each of all combinations of the at least two identified descriptive attribute variables according to

$$Y_{r \text{ Average}} = \text{sum}(Y(x1 = a \text{ and } x2 = b)) / \text{count}(x1 = a \text{ and } x2 = b)$$

where x1 are is a set of categorical variables and x2 are is a set of continuous variables, and where a is a set of criteria for segmenting x1 and b is a set of criteria for segmenting x2.

5. (currently amended) A method according to Claim 1 wherein said step of grouping the assets further comprises the step of computing an average for a response variable for all

combinations of ~~pairs~~ of identified descriptive attribute variables, and ~~the~~ levels of the identified descriptive attribute variables.

6. (original) A method according to Claim 5 further comprising the step of computing an expected value of the response variable from a weighted value of occurrence for the separate attribute variables.

7. (currently amended) A method according to Claim 6 wherein said step of computing an expected value of the response variable further comprising the step of computing expected value according to

$$Y_{r \text{ Expected}} = [\text{sum}(Y(x1=a)) * \text{count}(x1=a) + \text{sum}(Y(x2=b)) * \text{count}(x2=b)] /$$

$$[\text{count}(x1=a) * \text{count}(x2=b)]$$

where x1 ~~are~~ is a set of categorical variables and x2 ~~are~~ is a set of continuous variables, and where a is a set of criteria for segmenting x1 and b is a set of criteria for segmenting x2.

8. (original) A method according to Claim 6 further comprising the step of computing a deviation of the response variable from the expected value of the response variable, where the deviation is the average value of the response variable minus the expected value.

9. (currently amended) A method according to Claim 8 wherein said step of displaying the groupings further comprises the step of displaying a graphical embodiment of the response variables including the ~~and~~ expected values of the response variables and the deviations.

10. (currently amended) A method according to Claim 9 wherein said step of displaying a graphical embodiment further comprises the step of displaying a ~~three~~ multi-dimensional visualization of the response variables and expected values of the response variables.

11. (currently amended) A system for correlating descriptive attributes of an asset portfolio for valuation of the assets included within the portfolio, said system comprising:

a computer configured as a server and further configured with a database of asset portfolios and to enable valuation process analytics; and

at least one client system connected to said server through a network, said server configured to:

segment the portfolio of assets into at least two valuation portions;

prompt a user to at least one of fully underwrite each asset individually, and group and underwrite a sample of assets included within a first portion of the asset portfolio for computing a value for each asset included within the first portion of the asset portfolio;

store in the database asset data including the computed value and descriptive attribute variables for each asset included within the first portion;

statistically infer a value for each asset included within a second portion of the asset portfolio by performing a correlation process between descriptive attribute variables for assets included within the second portion and asset data stored in the database, the correlation process including the steps of:

identify identifying at least two descriptive attribute variables for assets included within the second portion of in the portfolio for correlating with descriptive attribute variables stored in the database for assets included within the first portion of the portfolio;

calculate calculating a value of a response variable for assets included within the second portion based on the asset data assigned to assets included within the first portion having descriptive attribute variables that correlate with the identified descriptive attribute variables or frequency of occurrence for levels or bins of individual attribute variables and pairs of attribute variables;

group grouping the assets included within the second portion according to the calculated value of a the response variable or frequency of occurrence of the individual attribute variables; and

display displaying the groupings.

12. (original) A system according to Claim 11 wherein said server configured to determine if the variable type is continuous or categorical.

13. (currently amended) A system according to Claim 12 wherein said server configured to:

~~compute an average response value for categorical variables;~~

~~compute bins for continuous variables; and~~

~~compute an average bin response.~~

compute an average value of a response variable for each of all combinations of the at least two identified descriptive attribute variables, wherein the at least two identified descriptive attribute variables include at least one of a continuous variable type and a categorical variable type; and

store in the database the average value for each of all combinations of the at least two identified descriptive attribute variables.

14. (currently amended) A system according to Claim 11 wherein said server configured to calculate an average value of a response variable for each of all combinations of the at least two identified descriptive attribute variables according to

$$Y_{r \text{ Average}} = \text{sum}(Y(x1 = a \text{ and } x2 = b)) / \text{count}(x1 = a \text{ and } x2 = b)$$

where ~~x1 are~~ x1 is a set of categorical variables and ~~x2 are~~ x2 is a set of continuous variables, and where a is a set of criteria for segmenting x1 and b is a set of criteria for segmenting x2.

15. (currently amended) A system according to Claim 11 wherein said server configured to:

compute an average for a response variable for all combinations ~~of pairs of~~ identified descriptive attribute variables; and

store values of the identified descriptive attribute variables.

16. (original) A system according to Claim 15 wherein said server configured to compute an expected value of the response variable from a weighted value of occurrence for the separate attribute variables.

17. (currently amended) A system according to Claim 15 wherein said server configured to compute an expected value of the response variable according to

$$Y_{r \text{ Expected}} = [\text{sum}(Y(x1=a)) * \text{count}(x1=a) + \text{sum}(Y(x2=b)) * \text{count}(x2=b)] / [\text{count}(x1=a) * \text{count}(x2=b)]$$

where x1 are is a set of categorical variables and x2 are is a set of continuous variables, and where a is a set of criteria for segmenting x1 and b is a set of criteria for segmenting x2.

18. (original) A system according to Claim 16 wherein said server configured to compute a deviation of the response variable from the expected value of the response variable, where the deviation is the average value of the response variable minus the expected value.

19. (currently amended) A system according to Claim 18 wherein said server configured to display a graphical embodiment of the response variables including the and expected values of the response variables and the deviations.

20. (currently amended) A system according to Claim 19 wherein said server configured to display a ~~three~~ multi-dimensional visualization of the response variables and expected values of the response variables.

21. (currently amended) A computer for correlating descriptive attributes of an asset portfolio for valuation of the assets included within the portfolio, said computer including a database of asset portfolios, said computer programmed to:

segment the portfolio of assets into at least two valuation portions;

prompt a user to at least one of fully underwrite each asset individually, and group and underwrite a sample of assets included within a first portion of the asset portfolio for computing a value for each asset included within the first portion of the asset portfolio;

store in the database asset data including the computed value and descriptive attribute variables for each asset included within the first portion; and

statistically infer a value for each asset included within a second portion of the asset portfolio by performing a correlation process between descriptive attribute variables for assets included within the second portion and asset data stored in the database, the correlation process including the steps of:

~~identify~~ identifying at least two descriptive attribute variables for assets included within the second portion of ~~in the portfolio for correlating with descriptive attribute variables stored in the database for assets included within the first portion of the portfolio;~~

~~calculate~~ calculating a value of a response variable for assets included within the second portion based on the asset data assigned to assets included within the first portion having descriptive attribute variables that correlate with the identified descriptive attribute variables ~~or frequency of occurrence for levels or bins of individual attribute variables and pairs of attribute variables;~~

~~group~~ grouping the assets included within the second portion according to the calculated value of a ~~the response variable or frequency of occurrence of the individual attribute variables; and~~

~~display~~ displaying the groupings.

22. (original) A computer according to Claim 21 programmed to determine if the variable type is continuous or categorical.

23. (currently amended) A computer according to Claim 22 programmed to:

~~compute an average response value for categorical variables;~~

~~compute bins for continuous variables; and~~

~~compute an average bin response.~~

compute an average value of a response variable for each of all combinations of the at least two identified descriptive attribute variables, wherein the at least two identified descriptive attribute variables include at least one of a continuous variable type and a categorical variable type; and

store in the database the average value for each of all combinations of the at least two identified descriptive attribute variables.

24. (currently amended) A computer according to Claim 21 programmed to calculate an average value of a response variable for each of all for each of all combinations of the at least two identified descriptive attribute variables according to

$$Y_{r \text{ Average}} = \text{sum}(Y(x1 = a \text{ and } x2 = b)) / \text{count}(x1 = a \text{ and } x2 = b)$$

where ~~x1 are~~ is a set of categorical variables and ~~x2 are~~ is a set of continuous variables, and where a is a set of criteria for segmenting x1 and b is a set of criteria for segmenting x2.

25. (currently amended) A computer according to Claim 21 programmed to:

compute an average for a response variable for all combinations ~~of pairs of~~ identified descriptive attribute variables; and

store values of the identified descriptive attribute variables.

26. (original) A computer according to Claim 25 programmed to compute an expected value of the response variable from a weighted value of occurrence for the separate attribute variables.

27. (currently amended) A computer according to Claim 25 programmed to compute an expected value of the response variable according to

$$Y_{r \text{ Expected}} = [\text{sum}(Y(x1=a)) * \text{count}(x1=a) + \text{sum}(Y(x2=b)) * \text{count}(x2=b)] / [\text{count}(x1=a) * \text{count}(x2=b)]$$

where ~~x1 are~~ is a set of categorical variables and ~~x2 are~~ is a set of continuous variables, and where a is a set of criteria for segmenting x1 and b is a set of criteria for segmenting x2.

28. (original) A computer according to Claim 26 programmed to compute a deviation of the response variable from the expected value of the response variable, where the deviation is the average value of the response variable minus the expected value.

29. (currently amended) A computer according to Claim 28 programmed to display a graphical embodiment of the response variables including the ~~and~~ expected values of the response variables and the deviations.

30. (currently amended) A computer according to Claim 29 programmed to display a ~~three~~ multi-dimensional visualization of the response variables and expected values of the response variables.